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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/696,745

10/29/2003

Shinichi Koriyama

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07/20/2006

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EXAMINER

TAKAOKA, DEAN O

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

Office Action Summary

Application No.

10/696,745

Applicant(s)

KORIYAMA, SHINICHI

Examiner

Dean O. Takaoka

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7, 9, 10, 13, 14 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9, 10, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 3, 6, 7, 9, 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchimura et al. (U.S. Patent No. 6,239,669) in view of Koriyama et al. (U.S. Patent No. 6,239,669), prior art submitted in Applicant's IDS dated May 17, 2003 for reasons of record contained in the Office action dated May 27, 2005.

Claim 1:

Claim 1 has been amended (Applicant's amendment dated May 12, 2006) to further comprise the "wherein the one end of the line conductor is short-circuited to the ground conductor layer;"

Uchimura et al. in view of Koriyama et al. further shows this limitation where Uchimura et al. shows ground layers (2 and 3 comprising metallized surfaces of the waveguide) and where one end of transmission line 60 is short-circuited to ground (thru 62 – Fig. 6). While only 2 has been previously named by the Examiner as ground (see the Office action dated May 27, 2005), both metallized layers 2 and 3 of the waveguide comprise ground, thus where Fig. 6 shows one end of the conductor short-circuited to ground, thus the rejection is maintained by the Examiner.

Claims 2, 3, 6, 7, 9, 10, 13, and 14 have not been amended, thus the rejection/s is/are maintained by the Examiner.

Response to Arguments

Applicant's arguments filed May 12, 2006 have been fully considered but they are not persuasive.

The Applicant submits Uchimura et al. and Koriyama et al. do not disclose or suggest the claimed features "*wherein the one end of the line conductor is short-circuited to the ground conductor layer*".

The Examiner directs Applicant to Fig. 6 where Uchimura et al. shows grounds layers (2 and 3 comprising metallized surfaces of the waveguide) and where one end of transmission line 60 is short-circuited to ground (thru 62 – Fig. 6). Additionally, the dependent claims have not been amended, thus the rejections are maintained by the Examiner.

Allowable Subject Matter

Claim 21 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Uchimura et al. and Koriyama et al. show the high frequency line to waveguide device including line conductor and ground layer and but does not teach or suggest two slots formed in the ground layer orthogonal to one end of the line conductor where Uchimura et al. shows a single slot (Figs. 13-17).

Applicant's cited prior art by Koriyama et al. shows a high frequency line to waveguide device including line conductor and ground layer and but does not teach or suggest the line conductor (6, 9) and ground conductor (5) disposed on the same surface.

Newly cited prior art by Okajima et al. shows a high frequency line to waveguide device including line conductor (6b) and ground layer (3), slots (7) formed in the ground conductor layer, shield conductors (5) surrounding one end of the line conductor, and a waveguide (2) disposed on the opposite surface of the dielectric layer but does not comprise an opening opposite one end of the line conductor and slots (where the slots are the only opening) and where the waveguide does not extend in a direction from one surface of the dielectric to the other surface, where waveguide 2 extends parallel to the substrate (Fig. 21).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okajima et al. shows a a high frequency line to waveguide device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean O. Takaoka whose telephone number is (571) 272-1772. The examiner can normally be reached on 8:30a - 5:00p Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2817

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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July 14, 2006